Health-related Quality of Life and its Related Factors among the Elderly Residing in Nursing Homes of Ahvaz, Iran

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ABSTRACT

Background: The global growth of the elderly population is a major challenge for healthcare providers, family members, and the community in which the elderly live. In addition, quality of life is one of the most outstanding health goals for improving individuals' health, which in recent years has been recognized as one of the most important factors in people's lives, especially the elderly and those with disabilities. Therefore, it is necessary to determine the quality of life and its related factors in these individuals. The present study aimed at evaluating quality of life and its effective factors in the elderly living in the nursing homes of Ahvaz.

Methods: This cross-sectional study was conducted on 150 elderly aged 60 years and above who were living in nursing homes in Ahvaz, Iran. They had been selected by census method. The inclusion criteria were as follows: Aged equal to or more than 60 years and consent to participate in the study. Data collection instrument included two subscales: The socio-demographic factors (age, gender, education level, marital status and co-morbidity) and the World health Organization's Quality of Life (WHOQOL-BREF) questionnaire. The data were analysed using the SPSS software version 16 and through descriptive-analytic statistics such as frequency distribution, independent t-student test and analysis of variance (ANOVA). P-values less than 0.05 were considered statistically significant.

Findings: The quality of life, mean score was 53.66 ± 10.58. The results depicted that the physical health domain mean score was 48.67 ± 10.70, which was smaller than other domains. Social relationship domain had the highest mean score as 54.40 ± 8.23. The males' quality of life scores were higher than females'. The results obtained from investigating the relationship between health-related quality of life and personal-social and clinical factors indicated that age (p=0.047), sex (p=0.001), marital status (p=0.019) educational attainment (p=0.001), and associated illness (p=0.002) have significant differences with quality of life.

Conclusion: Quality of life in the elderly population is at a moderate level. The research findings indicate that there is a serious need for planning and action to help elderly people for improvement and promotion of their general health and quality of life.

Key words: Quality of life, Elderly, Nursing homes

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INTRODUCTION

The growth in the elderly population is one of the most important economic, social, and healthcare challenges in the 21st century [1]. The global growth of the elderly population is an important challenge for healthcare

providers, family members, and the community in which the elderly live [2].

As the statistics provided by the WHO shows, the number of elderly people in the world will rise from 650 million to 2 billion by 2050; and with the fast-paced world-wide rise in aging, by the year 2050, one in five will be an elderly [3].

For now, 8.2% of the population in Iran is aged over 60 years, which is projected to reach 26% by 2050. This is indicative of an aging population crisis, as the WHO called it "Old Age Tsunami", which will set this group as the largest population group in Iran [4]. In recent years, one of the most important indicators and measurable criteria for determining the needs and health conditions of the elderly and improving it is the Quality of Life Index [5,6]. The significance of quality of life and health status is so great that experts who have focused on the healthcare consider the present century as the age of improving quality of life and health status [7].

Quality of life is one of the most pursued health goals for improving the health of individuals, which in recent years have been recognized as the most important factors affecting individuals' lives, especially the elderly and those with disabilities [8]. Quality of Life is a continuous multidimensional concept pointing to the health and satisfaction of life [9].

The WHO defines the quality of life as individuals' understanding of their position in life, in terms of culture, value system in which they live, their goals, expectations, standards, and priorities [10]. Quality of life in the elderly can be easily threatened. Hence, awareness of factors affecting the quality of life in the older ages is potentially important [11]. Knowing more about these factors can be a great contribution to improving quality of life in this group. If you can improve the quality of life of the elderly, many health and community service costs will be reduced, as improving their quality of life will lead to self-reliance and cognitive adaptability [12]. Research shows that the living environment of the elderly is a very important factor affecting their health and longevity [13].

Nowadays most scholars as well as the UNESCO believe that the main place of the elderly is in their own home, where they have grown up, lived, and witnessed the growth of their children, unless circumstances arise for some reason and in emergencies. It is not possible to keep the elderly at home, in which case the transfer to the nursing home is considered as the last resort [11]. Therefore, considering that quality of life is considered as a key objective for promoting health in the elderly, the present study was conducted with the aim of evaluating quality of life and its effective factors among the elderly living in the nursing homes of Ahvaz.

METHODOLOGY

This cross-sectional study was conducted on elderly aged 60 years and over who were lived in nursing homes in Ahvaz, Khuzestan in 2017.

Khuzestan Province, with a population more than 4 million people, is located in the southwest of Iran. The province has only two nursing homes located in Ahvaz. With regard to Iranian culture, elderly people usually live with their family until their very end, and their transfer to the nursing home does not happen, except in certain cases.

From among a total of 156 individuals residing in these two nursing home centres, 150 individuals were selected as participants on the basis of inclusion and exclusion criteria *via* the census method. The inclusion criteria were as follows: Aged equal to or more than 60 years and consent to participate in the study.

Exclusion criteria included: suffering from cognitive deficiency, inability to answer questions, and not having consent to participate in the study.

Data collection instrument included two subscales: The socio-demographic factors (age, gender, education level, marital status and co-morbidity) and the World health Organization's Quality of Life (WHOQOL-BREF) questionnaire. This questionnaire contains two items assessing overall quality of life and general health, as well as 24 other items divided into four domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environmental health (8 items). Each item is rated on a five-point Likert scale and scored from one to five on a response scale. According to the guidelines, the raw domain scores for the WHOQOL-BREF were transformed to a score between 4 and 20. The scores of each domain are scaled in a positive direction (i.e., lower scores denote lower quality of life). The mean score of the items in each domain is used to calculate the domain scores, which are ultimately transformed linearly to a 0-100 scale.

The WHOQOL-BREF questionnaire is available in many languages, and has been translated into Persian and validated in Iran by Nedjat et al. According to the results of Nejat et al. study, Cronbach's alpha coefficient and intra class correlation values in all domains were above 70% [14,15]. The data were analysed using the SPSS software version 16 and through descriptive-analytic statistics such as frequency distribution, independent t-student test and analysis of variance (ANOVA). P-value less than 0.05 were considered statistically significant.

The mean age of total participants was 76 ± 3.24. Most of them were males (51.3%), and married (40.5%). In terms of education attainment, 56.5% of the participants had a primary level of education, and 88.6% of them reported having at least one chronic disease.

The results obtained from the relationship between health-related quality of life and personal-social as well as clinical factors depicted that age (p=0.047), gender (p=0.001) marital status (p=0.019), educational attainment (p=0.001) and associated illness (p=0.002) have significant relationship with quality of life (Table 1).

Table 2 illustrates the mean scores of different domains of quality of life. The quality of life means score was 53.66 ± 10.58. The results indicated that the physical

health domain score was 48.67 ± 10.70, which was smaller than those of other domains. Moreover, the highest score was for the social relationship domain as 54.40 ± 8.23.

Table 1: Association of QOL score with socio demographic factors and co-morbidity

	Variables	N (%)	Mean (SD) scores	p-value
Gender	Male	77 (51.3)	55.33 ± 9.51	0.001
	Female	73 (48.7)	49.72 ± 11.44	
Age (years)	60-64	9 (6)	54.76 ± 7.34	0.041
	65-69	12 (8)	52.81 ± 9.68	
	70-74	84 (56)	49.23 ± 8.57	
	≥ 75	45 (30)	47.11 ± 9.49	
Education	Illiterate	44 (29.3)	45.32 ± 10.54	0.001
	Primary school	85 (56.7)	49.19 ± 9.11	
	High school	21 (14)	51.45 ± 8.35	
Marital status	With partner	61 (40.7)	53.81 ± 10.32	0.019
	Single/widow/separated	89 (59.3)	45.63 ± 9.73	
Presence diseases	Yes	113 (88.7)	43.76 ± 8.95	0.002
	No	17 (11.3)	52.44 ± 11.26	

Table 2: Mean scores of WHOQOL-BREF of elderly in Ahvaz

Domains of QOL	Mean	SD
Physical health	48.67	11.7
Psychological	49.33	6.83
Social relationship	54.4	8.23
Environment	53.07	9.39
Total QOL	53.66	10.58

DISCUSSION

In the present study, the quality of life mean score was 53.66 ± 10.58, which was assessed as moderate. Among the various domains of quality of life, the best conditions are related to social relations, and the worst conditions are related to physical health domain. Babak et al. [16] and Rakhshani et al. [17] achieved similar results as well.

The research done by Tajvar et al. [18], aiming to investigate the factors affecting quality of life of the elderly in Tehran, showed that the physical health domain score was smaller than those of other domains, and the majority of elderly people had a moderate level of quality of life. Seraji et al. [19] showed that the study elderly had a moderate level of quality of life. Its results are consistent with findings of the present study.

The results of the present study depicted a significant and inverse correlation between health-related quality of life and the age of the elderly- that is, quality of life would be worse as they grow older. Rakhshani et al. [17] and Hellström et al. [20] achieved similar results. Tajvar et al. [18] concluded that as the elderly's ages grow, their quality of life decreases. In older people, the incidence of physical disabilities and physical limitations is more pronounced so that it affects their quality of life [20].

Regarding the correlation between the quality of life of the elderly and their gender, the findings showed that the males' quality of life mean score was higher than that of females'. This relationship was statistically significant. These findings confirm the results of similar studies conducted on this area [16,21,22].

In Lee et al. [23], there was a significant relationship between gender and quality of life so that quality of life in elderly men was significantly higher than that of elderly women. Owing to the existing cultural and social issues, the higher quality of life of men in Iran can be justified. Therefore, this issue necessitates paying more attention to women in the society during elderliness, especially the provision of more facilities in the physical domain.

In the present study, one of the other factors affecting quality of life in the elderly population was their educational attainment.

Higher education attainments increase economic, social and political participation in the elderly and, consequently, increase quality of life [23]. Education increases people's perceptions of the benefits and

barriers of behaviours [24]. In addition, higher levels of education lead to higher financial resources and higher socioeconomic levels [25].

In the present study, the illiterate elderly's quality of life mean score was lower than those of other elderly people. In fact, people with higher educational attainment had better quality of life. Rakhshani et al. [17] showed that quality of life increases as the educational attainment increases. In Lee et al. [23], there was a significant relationship between quality of life and education, and the more educated people are, the better quality of life they enjoy.

Friedman et al. [26] stated that low-educated individuals are less familiar with problem-solving methods. Moreover, in most cases, their economic statuses are mostly inappropriate. These issues make them more susceptible to stress and lower quality of life. These findings suggest that people's literacy has been a positive factor in having a healthy lifestyle, and this leads to better health and life satisfaction.

Regarding the marital status variable, the findings also showed that married individuals had a higher quality of life than non-married ones (single, separated, widows). These results are also consistent with those of Rakhshani et al. [17] and Hagedoorn et al. [27]. Study by Subaşı et al. [28] also showed that marital status can affect life satisfaction. Matrimony is one of the important factors that lead people to follow health guidelines and quality of life in the elderly [29]. Walker et al. stated that married elderly are hospitalized less than widows [30].

Most of the study elderly suffered from at least one chronic disease, including high blood pressure, heart disease, diabetes, respiratory disorders, neurological disorders and musculoskeletal pain. In this study, the relationship between different domains of quality of life and the duration of chronic diseases was statistically significant, so that people with chronic diseases had low quality of life.

In Lee et al. [23], the existence and multiplicity of chronic diseases were reported as the factors associated with quality of life in the elderly. In the study of Ng et al. [31], this relationship was also significant. Generally speaking, most studies have shown that the presence of physical diseases is one of the important factors affecting the quality of life in the elderly [31-34].

In study by Barry [34], elderly people account for about 60% of the healthcare costs. They consist of 35% of hospital clearance and 47% of hospitalization days. 8% of the elderly had at least one chronic disease, such as arthritis, hypertension, heart disease or sensory disorder. As the age increases, functional impairment increases. This has reverse effects on the ability to maintain independence and increases the need for help, which can be effective on reducing their quality of life.

The present study has several limitations, including its cross-sectional nature. Only quality of life of the elderly living in nursing homes was studied, not the general population over the age of 60 years. In addition, the relationship of the income of the elderly, the provision of health facilities in terms of costs, accessibility, the way of service delivery and even healthcare providers' behaviours and attitudes with their quality of life were not investigated in the study.

CONCLUSION

According to the research results, it is recommended that appropriate planning be done to increase the quality of health of the elderly in different aspects, especially physical and mental ones. In this regard, health care programs for the elderly, facilitating access to and use of these services, attention to improving the quality of nutrition in the elderly, and the increase in the quantity and quality promotion of using leisure time for the elderly are recommended.

ETHICAL CONSIDERATIONS

This study received approval from the ethics committee of Ahvaz Jundishapur University of Medical Sciences. All participants gave their oral consents for interview. The questionnaires were anonymous and all the information was kept confidential in this study.

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AUTHORS' CONTRIBUTIONS

Study design: Ali Akbar Rajabi, Nasrin Saadati; Data collection and analysis: Ali Akbar Rajabi, Ahmad Moradi, Ali Kord; Manuscript preparation: Mahin Salimi, Ahmad Moradi.

All authors read and approved the final version of the manuscript.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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